

REMARKS

Introductory Comments

Claims 1, 3-6 and 10-12 were examined in the Office Action under reply and variously rejected under (1) 35 U.S.C. §112, second paragraph (claims 5 and 6); and (2) 35 U.S.C. §102 (claims 1, 3-6 and 10-12). These rejections are believed to be overcome for reasons discussed below.

Applicant acknowledges with appreciation the withdrawal of the previous rejection under 35 U.S.C. §112, first paragraph, as well as the obviousness-type patenting rejection.

Overview of the Amendments

Claim 12 has been cancelled and claims 1, 5 and 6 have been amended to recite the subject invention with greater particularity. Claim 1 now recites that the T cells are contacted with "interleukin-2, interleukin-6 and tumor necrosis factor alpha." Dependent claims 5 and 6 have been amended to recite that T cells are contacted with the specified concentrations of IL-2, IL-6 and TNF α .

Support for the amendments can be found throughout the specification at, e.g., page 3, lines 18-24 and lines 31-35; and page 12, lines 17-19.

The foregoing amendments are made without prejudice, without intent to abandon any originally claimed subject matter, and without intent to acquiesce in any rejection of record. Applicant expressly reserves the right to pursue the subject matter of the cancelled and amended claims in another application.

Rejection Under 35 U.S.C. §112, Second Paragraph

Claims 5 and 6 were rejected under 35 U.S.C. §112, second paragraph, as indefinite. The Office asserts "it is unclear to what the recited dosages refer." As explained above, applicant has amended claims 5 and 6 to recite the concentration of the various components contacted with the T cells. Thus, this basis for rejection has been overcome.

The Office also comments on the term “contacting the T cell independent of an antigen.” Applicant agrees with the Office’s interpretation of this phrase, namely, that the phrase means that the cytokines are administered without co-administering an antigen.

The Office’s comments regarding the phrase “antigen independent activation of T cells” are moot in light of deletion of this phrase from the claims.

Rejections Under 35 U.S.C. §102

The Office rejected claims 1, 3-6 and 10-12 under 35 U.S.C. §102(b) as anticipated by U.S. Patent No. 4,879,111 to Chong (“Chong”) and under 35 U.S.C. §102(e) as anticipated by U.S. Patent No. 5,425,940 to Zimmerman et al. (“Zimmerman”). The Office asserts Chong teaches that IL-2 and TNF α can be administered before the presence of bacterial antigen and argues that this administration is therefore independent of antigen. Office Action, page 4. With respect to Zimmerman, the Office alleges Zimmerman administers a combination of IL-2 and TNF α for treatment of tumors independent of antigen. Office Action page 4.

Applicant disagrees with this assessment for reasons of record. Nevertheless, the claims have been amended to recite that T cells are contacted with a combination of IL-2, IL-6 and TNF α . As explained in the application at page 12, lines 17-19, the use of all three cytokines produced a synergistic effect, leading to stronger activation. None of the cited art discloses or suggests contacting T cells with such a combination. In fact, IL-6 is not even mentioned in Chong or Zimmerman. Anticipation requires the presence of each and every element of the claimed subject matter. Accordingly, the cited art does not anticipate the present claims and this basis for rejection should be withdrawn.

CONCLUSION

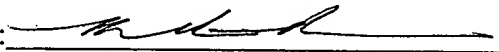
Applicant respectfully submits that the claims define an invention that complies with the requirements of 35 U.S.C. §112 and that is patentable over the art. Accordingly, a Notice of Allowance is believed in order and is respectfully requested.

Please send all further communications in this case to:

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